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ABSTRACT

A World Health Organization report concerning strategies for promoting communication and collaboration between and within the health and educational systems is presented. Changes that are needed to increase communication and collaboration are identified separately for the health services system and the health manpower training system. In addition to reviewing recommendations of past reports and research studies, attention is directed to case studies from Switzerland, Sweden, and Poland. These studies consider possibilities for improvement of communication and collaboration at different levels (national, institutional, professional, and individual), and specifically address the links between health care and medical education. Some reference is also made to the education of other health personnel, including nurses. For each level, constraints in improving health and education communication and collaboration are identified. It is concluded that improved communication and collaboration can help change both systems in the sense of a better orientation to the health needs of the population. This implies a reorientation from a largely hospital-based and biomedical model toward a concept of health promotion and maintenance through primary care. A bibliography and the three case studies are appended. (SW)

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COMMUNICATION AND COLLABORATION BETWEEN AND WITHIN THE HEALTH AND EDUCATIONAL SYSTEMS

ED232494

REPORT ON A WORKING GROUP

WARSAW
10-14 NOVEMBER 1980

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ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

COMMUNICATION AND COLLABORATION BETWEEN AND WITHIN THE HEALTH AND EDUCATIONAL SYSTEMS

Report on a Working Group

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The meeting was held at the Medical Centre of Postgraduate Education in Warsaw. It was convened by the WHO Regional Office for Europe with support from the Government of Sweden, and attended by 20 planners and administrators in health or education, teachers of medicine and nursing and educational experts from nine European countries as well as three staff members of the Regional Office (see Annex 5 for list of participants).

The meeting was opened by Dr T. Szelachowski, Minister of Health and Social Welfare of Poland, who welcomed the participants on behalf of the Government of Poland. Dr A. Wojtczak, Director, Research, Planning and Human Resources at the Regional Office, conveyed to the Group the greetings of the Regional Director, Dr Leo A. Kaprio, as well as his hope that it would help to find mechanisms to improve communication and collaboration between and within the health and educational systems.

Professor J. Szczerban was elected Chairman, Miss M. Auld, Vice-Chairman and Professor H. van den Bussche, Rapporteur. Dr W. Fritsche acted as Secretary.

The participants visited the Medical Faculty of Bydgoszcz on 12 November.

1. Introduction

The development of health services depends to a great extent on the supply of well-educated and trained personnel. Together with planning, research and development, education and training is one of the most important instruments for reorienting health services.

Reorientation of the health care policy of a society leads to demands for changes in both the content and the organization of training and education. Thus manpower development planning must be undertaken in close collaboration with health planning. Today, there is a considerable imbalance in many countries, between health planning and educational planning.

Health services systems (HSS) and health manpower training systems (HMTS) differ from country to country depending on the form of organization. There is, however, in many countries a functional "communication gap" between the two systems. Both seem to speak a different language, live on their own and - sometimes - compete rather than collaborate.

The problem of adequate communication and exchange of information between various societal groups assumes great socioeconomic relevance where plans for the future development or the delivery of highly specialized services are concerned. This applies in particular to high-level planning. Educational planning has a long-term effect on health planning and health care delivery. It is therefore imperative to establish a dialogue between health and educational planners and decision-makers. Accordingly, the World Health Assembly decided to set up a programme on education and training in 1972. This programme included activities on the topic of working interrelationships and communication within the health team. Furthermore, work was done on communication problems at the system level, i.e. cooperation between the HSS and the HMTS and within these systems. In 1976 the WHO steering committee on health manpower development decided to merge the two programmes into one.

In the meantime the WHO Regional Office for Europe launched its medium-term programme in nursing/midwifery with the aim inter alia of promoting communication and collaboration between the training system and the services in the field of nursing.

Several studies were undertaken in the following years in order to identify and clarify different aspects of the problem (see Annexes 2, 3 and 4). The major finding of these studies was that the problem is very complex. Several dimensions (verbal-interactive, economic, institutional, professional) have to be taken into consideration to explain and overcome the communication difficulties now existing.

In November 1979 a preliminary consultation convened at the Regional Office for Europe proposed the following objectives for the discussions of the Working Group:

(1) to identify and devise major strategies and mechanisms that would ensure better collaboration and communication at different levels between the health and educational systems in order to make education and training far more relevant to present and future needs of society;

(2) to make education and training far more relevant to needs in the field of primary health care, promoting a community and health orientation, rather than a disease and hospital orientation;

(3) on the basis of the dynamic and multidimensional strategies and mechanisms thereby developed:

- to draw up a report indicating desirable changes of direction;
- to identify potential collaborating centres and individuals;
- to establish a network of collaborating and participating centres in the field of communication and collaboration;
- to specify criteria for the creation of such a network, e.g. an institution should be able to make a continuing contribution and create mechanisms for communication and collaboration.

It was also decided that a limited number of case studies on the state of the art and the problems of communication and collaboration within and between the HMTS and the HSS in selected Member States should be carried out and used as a basis for discussion by the Working Group.

2. Review of past WHO activities in the field of communication and collaboration

Communication and collaboration between and within the health and educational systems is not a specific phenomenon that is easy to recognize and describe. Rather, it is an essential part of all programmes in the field of health manpower development and is the prerequisite for their adequate planning, implementation and evaluation.

Thus, it was felt that a critical review should be made of the impact of the past WHO activities regarding communication and collaboration as background for the Working Group.

The review was carried out by Professor H. van den Bussche. The main documentation consulted for the review consisted of reports of working groups, seminars, conferences and research studies organized by the Regional Office. Over 40 reports were studied (see Bibliography in Annex 1). Thus, the review represents the collective opinions of a large number of experts, with varying backgrounds and opinions, who have met under WHO auspices. The main conclusion of the review was that the weak factors in the field of communication and collaboration have already been described and the reasons for the deficiencies analysed satisfactorily. What is lacking is a set of workable strategies for effecting a real improvement.

2.1 Problems of (non) communication and (non) collaboration: degree of awareness and quality of explanatory statements

The first striking observation was that none of the sources express satisfaction with the level of communication and collaboration. Nearly all documents explicitly point to an urgent need for improvement. Thus, there is a general awareness of the deficiencies of the division of labour in the HSS and the HMTS.

Furthermore, there is a general agreement on the reasons and mechanisms responsible for the lack of communication and collaboration. These are outlined in the following table drawn from five documents dealing solely or mainly with the relationship of the HSS and the HMTS. Explanatory statements in the other documents fit into this scheme.

2.2 Aims of change: purpose of increased communication and collaboration

The broad lines of the desirable changes in the HSS and the HMTS, which it is hoped to achieve through increased communication and collaboration within and between the systems, are clearly stated and - apparently - generally approved. They may briefly be described as follows:

The health services system (HSS) shall:

(1) be responsive to the changing health needs of the population (i.e., demographic and morbidity developments, changes in consumer needs);

(2) be preventive in approach;

(3) be planned and coordinated at a national level thereby avoiding centralism and bureaucracy, with the national planning in balance with decentralized and local planning;

(4) be organized according to national cultural traditions and economic possibilities;

(5) be less hospital-based, and more community-based;

Table 1. Summary of reasons for inadequate communication and collaboration between systems

System	Reasons			
	overall/general level	national level	institutional level	individual/group level
Health services system (HSS)	individual) illness) orientation cure)	inconsistencies between social and health policies	bureaucratization through growing numbers of staff and size of units	dominance of solo practice
	lack of knowledge and agreements on needs	lack of comprehensive plan of objectives and resource allocation	competition with related institutions and professions	dominance of physician
	lack of information on utilization and utiliza-tion deficiencies	scarceness of specific resources	lack of pychosocial services	role problems
	professional and insti-tutional dominance/lack of consumer influence	rigidity of governing bodies and/or legislation	lack of preventive services	maldistribution
	lack of quality control	influence of professional and institutional lobbies	maldistribution	traditional male - female distribution of professional roles
	inadequacy of research		scarcity of personnel	particularism
	No liaison	mechanism	with	HMTS
	No liaison	mechanism	with	HSS
Health manpower training system (HMTS)	system not oriented to needs of health services and the population	inconsistencies between general and health manpower training policies	lack of coordination between different professional training branches	inadequate selection of entrants
	systems not integrated into regional health services	lack of comprehensive plan for all branches/ professions	lack of coordination of undergraduate, post-graduate and continuing education	insufficient knowledge and agreement concerning the aims of training among and between teachers and students
	hospital-based and -oriented training	postgraduate and continuing education often non-existent or noncompulsory	status differences between branches (academic versus vocational)	lack of educational qualifications of teachers
	lack of consumer influence on system	absence of national associations for health manpower training branches	discipline- and department-based training	lack of information on competence of other professions
		brain drain	factual knowledge overload	lack of provision for team experiences in curricula
		rigidity of legislation	lack of teacher - student communication	
			lack of students' influence on curricula	
			absence of departments of education	

(6) be staffed on a multidisciplinary ("health team") basis;

(7) be planned on the basis of valid and reliable scientific data;

(8) be organized in close relation with the objectives and resources of the HMTS;

(9) show a high level of cooperation and communication between the systems;

(10) be flexible with regard to changing needs and provide for controlled experiments to increase its efficiency and effectiveness;

(11) provide for active participation and influence by the population;

(12) be continously evaluated.

The broad consensus concerning the future of the HMTS may be summarized as follows:

The health manpower training system (HMTS) shall:

(1) be responsive to health needs and to feedback from the HSS;

(2) be comprehensively planned and coordinated at the national level;

(3) be integrated in the regional HSS;

(4) be shaped with the participation and influence of consumers and students;

(5) provide opportunities for training in communicative and collaborative skills and for information on the work of related professions;

(6) develop problem-solving skills and an attitude of life-long learning;

(7) be planned on the basis of clear descriptions of functions and tasks for the different professions;

(8) provide postgraduate and continuing education opportunities for all professions;

(9) develop psychosocial and managerial skills;

(10) be organized on the basis of functional principles instead of departmental and nosological structures;

(11) be staffed by personnel with special training in educational science;

(12) establish units for educational research and development.

It may be concluded that a broad consensus with regard to the future of the HSS and the HMTS has been reached. In keeping with the suggestions concerning the reasons for deficiencies in communication and collaboration, it is proposed to devote less attention to the question of the future shaping of the HSS and HMTS, while recognizing the urefulness of further development of single elements.

2.3 Some criticisms of past experience and suggestions for the future

So far, it would seem from the review that the situation is satisfactory. Awareness of the problem is high, the reasons for the problem are well known and there is a broad consensus on the direction of the necessary changes. This review will not, however, turn into a round of applause, since some doubts and criticisms remain.

2.3.1 Insufficient consideration of strategies and means

The number of statements on the need for increased communication and collaboration bears an inverse relation to the number and the precision of the assertions regarding strategies and practical means to realize the desirable increase in communication and collaboration. All too often, the conclusions and recommendations are restricted to (albeit correct) statements that things ought to change, without even touching on the question of how to arrive at such a change.

The following example, drawn from the conclusions of a symposium on the role of social insurance institutions in preventive medicine (1), illustrates this point:

"(3) It is important to make full use of non-medical personnel for the practical application of preventive measures.

(4) The integration of preventive and curative medicine should be continued.

(5) If it is to succeed, global medicine demands the co-operation of the medical profession as a whole.

(6) Social insurance agencies should be interested in financing preventive acts and their participation in health planning should be sought.

(7) All types of preventive work should be accompanied by surveillance and follow-up so as to guarantee that anomalies detected are confirmed or otherwise accounted for and to make sure that patients are kept under observation.

(8) It is essential to set up an active social service to ensure the success of follow-up and prevention.

(9) Health education should be developed so as to encourage individuals to seek treatment and accept follow-up.

(10) University and post-university teaching of medicine and the other health disciplines should be reoriented."

Therefore, it is suggested that future meetings on communication and collaboration should concentrate on the question of possibilities, mechanisms, and instruments for change. In this respect, it seems important:

- to learn from concrete experiences in Member States by analysing the mechanisms of their successes and/or failures;
- to promote research on mechanisms which could increase collaboration and communication at different levels.

Two documents have to be excepted from the earlier criticism, as they give proposals for further action at national level.

A working group on country health programming as a determinant of health manpower development policies (2) reported as follows:

"It was considered that a liaison mechanism [between the HSS and the HMTS] was needed which would facilitate:

(a) agreement on a common mission;

(b) participation of educators in the formulation of a health policy;

(c) involvement of health administrators in the discussions and decisions concerning relevant issues related to the education of health workers.

The main objective of the liaison mechanism could be:

(a) integration of the planning, production and management of manpower and services;

(b) improved relevance of health service and manpower policies and programmes to the needs of the people, and the articulation of the two;

(c) the reallocation of health resources necessary to achieve these aims.

The main functions of the liaison mechanism could be:

(a) coordination;

(b) organization development;

(c) collection and dissemination of information;

(d) research and development.

This liaison mechanism should include high-level representatives from each key agency involved: policy-makers, administrators, health planners, providers of health care, consumers of health care, educators of the health team and researchers. It should have clear terms of reference, with an annual programme, and meet regularly."

A working group in Kuopio in 1975 on the relevance of educational planning to health problems (3) made a comparable proposal (although limited to planning of the HMTS) that a national body representative of the various health and educational interests and responsible for educational planning for health personnel would have the following duties:

"(1) to ensure that the necessary health personnel are trained, their level of competence maintained, and necessary new competencies acquired;

(2) to coordinate the activities of the various bodies engaged in the education of health personnel, while at the same time accepting and indeed promoting regional and institutional initiative; and to ensure that those who use the educational system are represented in the planning process and that their interests and needs are met;

(3) to determine and formulate the general objectives of the educational system for health personnel; and to ensure that the roles and functions of the various categories of health personnel, as specified by health administrations, are clearly defined and analysed for purposes of formulating institutional and instructional educational objectives;

(4) to establish criteria for monitoring and evaluating educational programmes and the educational system as a whole, as well as individual student achievement, and to see that the monitoring and evaluation are carried out;

(5) to determine, obtain and monitor the required investments and allocations of finance and of human and material resources; and to see that educational administrators and teachers are trained in the necessary planning methods;

(6) to determine in which kinds of institutions and health service facilities, or under which government administrations, the education and training of the various health professions should be carried out;

(7) to promote educational research, to indicate specific educational problems on which research is needed, to commission research, to evaluate research, and to provide for the application of research findings;

(8) to commission special studies which would obtain specific information for decision-making;

(9) to specify the information needed from health administrations and other bodies;

(10) to modify the plans in response to information obtained from the evaluation process and which would take into account consumer reaction and changing demographic, epidemiological and economic circumstances."

It is suggested:

(1) that these proposals should be taken up as a point of departure for developing concrete strategies to increase communication and collaboration;

(2) that in the further development of these proposals consideration should be given to the question of what could and should be done at a decentralized/local level.

2.3.2 Avoidance of dissent and conflict

Most of the reports - and their conclusions and recommendations - are worded in terms of broad consensus, yet both research findings in medical sociology and the common sense of every member of the HSS and the HMTS (and hence every participant in a WHO meeting) suggest that forms of change in the HSS and the HMTS are highly controversial and conflicting.

While the spirit and wording of the reports can be explained by the rules and necessities of international diplomacy in general and the structural restrictions of WHO in particular, it may be questioned if the extent of this exercise of diplomatic harmonization is in keeping with the search for adequate strategies to increase cooperation and collaboration. The following statement on the status of nursing education may illustrate this point (4):

> "The basic (undergraduate) education of the nurse is best provided as an integral part of regular post-secondary school education. It is recognized that in some countries responsibility for nursing education may properly rest with the health authority and that in many countries of the Region it may not be appropriate to educate all nurses at university or equivalent institutions of higher education."

The validity of this statement will not be discussed here. The point is that a reader who is not an expert in international nursing politics may deduce from the wording of the statement that the status of nursing education is highly controversial. But he will not be able to establish who is in favour of the principles or why.

There are, however, a few laudable exceptions to the above criticism:

(a) A working group to define the parameters of efficiency in primary care and the role of nursing in primary health care (5) gave an unequivocal statement on the position:

> "(1) There is a lack of knowledge and information about what goes on in primary health care and this makes planning, teaching and improvements in efficiency difficult. There is, paradoxically, a large amount of data potentially available for analysis and use. Such data could, with suitable coordination, be made available in a meaningful way for health workers at all levels of services.
>
> (2) The very multiplicity of patterns and methods of delivery of primary care has delayed the development of any identifiable managerial, coordinative and scientific infrastructure."

(b) Similarly, the study by Leo A. Kaprio on primary health care in Europe (6) clearly described the existing problems, the changes needed, the obstacles to be overcome and the vested interests involved.

(c) A symposium on the efficiency of medical care (7) noted that:

> "Achievements in the evaluation of care are nowhere impressive and, where they exist at all, their influence upon health services administration, priority allocation or social policy in health is negligible. There is here an almost desperate need for better communications, for innovation and for experiment, both in the controlled environment of the universities and within the administration system itself."

It is suggested that - within the realm of the politically possible - differences of opinions and controversy with regard to interests should be given more room for expression both in the background material for meetings and in the reports. The selection of participants may also be relevant in this respect.

The description of problems, obstacles, dissent, unsuccessful attempts, etc., is an important instrument in the development of lasting and successful strategies for improvement in communication and collaboration.

2.3.3 The need for a follow-up of developments

A review of the reports gives the impression that, in many meetings, insufficient attention was paid to historical comparison of the state of affairs, i.e., through a critical analysis of previous reports related to the topic of the meeting and an estimation of the progress made.

In the relevant domain of continuing education, for instance, three meetings took place in the last decade: 1973 (8), 1976 (9) and 1978 (10). Whereas the 1976 meeting explicitly related its recommendations to those of 1973 (and criticized the lack of progress made in the three intervening years), in 1978 no reference was made to the recommendations of the two previous meetings. The reader interested in the development of WHO policy with regard to continuing education will hardly be able to reach a valid conclusion.

It is therefore suggested that future meetings should take due note of previous analyses and proposals concerning the topic under discussion. If opinions and recommendations differ, the

reasons for the change should be given. It is a prerequisite to implementation of this suggestion that the Regional Office should prepare appropriate background material for the meeting, including a description of the action taken on previous recommendations and its effectiveness. In some cases, the establishment of a consultative committee, responsible for analysis and evaluation of the progress, should be considered.

3. Case studies from Switzerland, Sweden and Poland

Three case studies were presented to the meeting as a basis for discussion. They describe the present relationship between the health services and the educational system in a specific country or area. They analyse existing problems and the possibilities for improvement of communication and collaboration at different levels (national, institutional, professional, individual).

Abridged versions of the studies are attached, namely:

- Links between medical education and health care in the Canton of Berne, Switzerland (H. Noack, Annex 2).
- Health manpower training and its relation to the health services in Sweden (B. Eklundh, T. Kälvemark, Annex 3).
- Communication between health care and medical education in Poland (T. Marchimovicz, L. Dawydzik, Annex 4).

The comments by the Working Group on the case studies can be summarized as follows:

3.1 Switzerland

The study describes changes in the multiple and complex relationships between the training of physicians at the University of Berne and the regional health care system in a period of national endeavour to reform medical education in Switzerland (1969-1979).

The study demonstrates the possibilities of rapid local changes in a rather decentralized system in a favourable period of economic growth and social development. It also shows the difficulty of introducing and stabilizing new concepts of medical education at a time of worldwide economic problems. It is shown in detail that institutions, organizations, groups and individuals in the field of health services and education are linked to each other in a complex and delicate balance of power, which each tends to influence according to its own views and values. Thus, attempts to improve communication and collaboration in the health sector have to take into account the eventual shifts of power and, thus, the broader sociopolitical dimension of change.

3.2 Sweden

This case study describes a "mixed" system of organization of health services and education, with a complex pattern of agencies and decision-making boards at both the horizontal and the vertical levels. This arrangement functions by balancing the central and the local interests and aims at continuous cautious change on the basis of intensive deliberations and seeking of compromise among all the interests concerned. Insofar, this form or organization and its pattern of functioning may be considered to be typical of the Swedish general culture.

Notwithstanding the complexity of this formal system, informal communication plays an important role in the functioning of the system. Also, the importance of the qualifications of the individual representatives of interest groups is stressed.

As in the case study in Switzerland, the contradiction between the needs for change in services and training and the departmental, science-based orientation of the medical faculties is considered to be the main unsolved problem in this area. Also, the problem of incentives to change is posed, at a time when the most important change mechanism of the past - money - is getting scarce.

3.3 Poland

Both the HSS and HMTS are controlled by the Ministry of Health and Social Welfare in Poland. Thus the situation described in this case study is that of a centralized system. One of the most striking aspects of the Polish system is the fact that the medical academies have the function of supervising the provinces' central hospitals, as the latter have in relation to the district health

centres. This hierarchical system enables a direct flow of information between the different levels of health care institutions.

The training of physicians (and other health professionals) is organized under the auspices of the medical academies. Both for reasons of reform of the medical curriculum and for capacity reasons, the district and provincial hospitals have progressively been used more and more as teaching institutions. For this task, teaching staff of the academies work for a certain period of time in the regional hospitals.

Although this structure may allow for a consistent and unified approach to the planning and development of the HSS and the HMTS and for intensive communication and collaboration between different levels, the case study points to the following problems which have not been solved satisfactorily:

- difficulties in acceptance (by the lower-level institution) of the supervision and evaluation performed by the higher-level institution;
- the contradiction between the "academic" concept of medical education, as promoted by the professors, and the need for a valid practical training for the future general practitioners' role, as emphasized by the lower-level health services and the students;
- a clash of administrative, research, clinical care and teaching duties of faculty members that may impede the quality of the training programmes;
- as in the case study in Sweden, shortages of certain qualified health manpower categories that may hinder the orientation of the services towards the health needs of the population.

4. Communication and collaboration: description of the problem

The Working Group considered that communication and collaboration are terms with a wide range of meanings. Their particular significance may differ according to the relationship between the health services and the educational system. Thus, it proved relevant for the Group to discuss the problem of communication and collaboration at the international, national, institutional and group levels.

The fact that all previous documents of WHO point to shortcomings of cooperation and communication reveals a general awareness of this problem. What is lacking, however, is a set of sound concepts and strategies that would allow progress in communication and collaboration. A prerequisite to the development of workable mechanisms for change is an analysis of the constraints in the improvement of cooperation and collaboration in the field of health care and education. On the basis of such an analysis, the Group formulated a number of recommendations which should be regarded as a first step towards change. The Group does not claim that these recommendations will guarantee success. What is generally needed is an emphasis on planned, monitored change and its evaluation, rather than office desk concepts and proposals.

5. Constraints in the improvement of communication and collaboration between and within the health and the educational systems

5.1 Constraints at the international level

The Working Group came to the conclusion that governments seem all too often to disregard the recommendations and proposals of international organizations in the field of health care and education, except of course when a particular recommendation clearly fits into the national policy. It was felt, for example, that basic concepts for the future development of the health and educational systems - like the concepts of primary health care and problem-oriented education - are widely accepted at the international level but have had little concrete impact up to now on the actual policy in many nations. Thus, an internationally coordinated effort for dissemination of information on the concept of primary health care and its educational implications for health services and educational systems seems necessary. Furthermore, it was felt that the distribution of reports and recommendations is inadequate. Both the distribution system of the Regional Office and the dissemination policy of most governments are responsible for the fact that reports and recommendations often fail to reach the grassroot health workers, teachers and students, who could certainly benefit from them in their efforts to solve problems and in the corresponding learning situations (especially in the field of continuing education).

Similarly, such international meetings "suffer" from the fact that most are staffed by experts from the administrative and academic sectors, whereas the participation of professionals of the lower echelons is rare.

It should be noted also that international communication suffers from severe semantic problems. Definitions such as "primary" care, "medical" education, "community" medicine mean very different things in different countries.

Several interesting experiments aimed at a reorientation of services and/or education have been conducted in individual Member States during the last decades. It was felt, however, that cross-national comparative research is needed in order to evaluate success and/or failure of these experiments, and the favourable and/or constraining conditions for their further development. Reliable data on the experiences could serve as important learning material for improvement of the planning process in other countries.

5.2 Constraints at the national level

It was generally felt that an improvement of communication and collaboration cannot be achieved unless a national body representing both the health services and the training system is set up. Such a body has already been proposed by the WHO working groups on the relevance of educational planning to health problems and on country health programming as a determinant of health development policies (3, 2).

The present Working Group confirmed the need for such national representative bodies and regretted the fact that they have not yet been set up in all Member States.

On the other hand, some conclusions with regard to constraints can be drawn from the experiences in countries where a liaison mechanism exists.

- The national body should be counterbalanced by decentralized and local comparable bodies, which can adapt the general rules more precisely to local needs and conditions. Furthermore, such decentralized bodies are able to incorporate the "grassroot" health workers into the process of decision-making. If this is omitted, decisions "from above" are likely to be disregarded at the grassroot level.

- In the planning of the national body, it should be considered that, due to changes in morbidity and health needs, the boundary between health services and social services is gradually being effaced. Thus, the coordinating body should also represent the relevant social services as well.

- It should be borne in mind that the structure of a communication system is less important than its function. It should, for example, allow and promote informal communication among levels and/or interest groups. Its proposals and decisions should not aim at uniformity but also promote "deviant" experiments.

- In contrast to traditional concepts, in which the medical profession and the medical faculties play a dominant role, ways should be found to include consumers and other nonprofessional groups and institutions into the deliberations.

5 3 Constraints at the institutional level

The rapid development of medical sciences and technology has, together with the growth of comprehensive systems of social security, resulted in a system of health care consisting of several substructures with specific functions, specialties, different channels of budgeting and different systems of administration. Because of the absence of an overall health policy, these single elements of the system often function in a more or less independent, unrelated way. They may seek to further their particular interest and they sometimes compete with the "neighbour" institutions rather than cooperate. The point is illustrated well by the number of professions, specialties, services and administrative authorities a patient with severe chronic disease has to deal with in the process of cure, rehabilitation and eventually granting of disability pension. This growth in the number and size of institutions and professions sometimes appears to the client as yet another manifestation of a bureaucratizing society.

Within this institutional development, an accentuation of the services in the sense of an increasing dominance of the biomedical model and the consequent orientation towards the curing of disease has taken place. The aspects of prevention, "care" and psychosocial help have been largely neglected during the last decades.

These developments have led to the dominance of the medical profession in all matters of health including the work concepts of other professionals who have become auxiliaries and/or which

have taken over the "medical" model. Nearly all research projects, publications, textbooks and congresses concerning health care have been produced under the auspices of the medical profession only.

These developments within the services are reflected in education and training for the health professions. The number of training routes for the growing number of professions, the segmentation of such training into undergraduate, graduate and postgraduate stages, and the differentiation into specialties and subspecialties, have made any overview of the situation difficult, even for the health administrator.

The same applies to the recruitment of the teaching personnel. At this level also, a phenomenon of medicalization of the curricula of the other health professions has taken place. Correspondingly, most of the training of health professionals is hospital-based and -oriented. The perspectives of prevention and primary care play a negligible role in most curricula.

What is generally lacking, however, in each curriculum is the provision of information on the skills and duties of the other health professionals. Common learning experiences, which would prepare for the necessary teamwork later on, are rare. It seems that the individual curriculum is designed more to ensure professional identity by delineation from the other professions and thus promotes interprofessional competition on the basis of differences in educational status and length of training.

5.4 Constraints at the group level

The changes in morbidity patterns and health needs (e.g. chronic illness, psychosocial needs), the development of science and technology in the field of health care and the changes in work and lifestyles during the last decades have promoted the delivery of health services on a team basis.

Within the primary health care sector, the hitherto predominant model of solo practice by physicians is progressively being supplemented by a model of care by institutions based on the concept of teamwork (e.g. health centres). In hospital settings, the multiprofessional team approach was developed earlier, on a wide scale. Nowadays, the team approach is generally considered to be crucial to the realization of a comprehensive primary health care system in European countries. Both in hospitals and in the less frequent team-based ambulant care institutions, several factors can be discerned which impede the optimization of communication and collaboration at the group level.

Usually, the physician within the team has remained the sole decision-maker in most matters relating to the health of the individual, the family and the community. The other professions within the institution or within the health team have had the status of executive auxiliaries, whose action depends on the order of the physician. Thus, within the team, the specific skills of every professional do not necessarily enter into the decisions governing the service. Very often, legal, financial and educational rules hinder professionals from performing autonomously.

This hierarchical principle in the organization of health care impedes collaboration among team members, since a team can only function well on the basis of a set of common goals and concerns. Furthermore, the work setting must provide a climate which allows every professional to apply his specific knowledge and skills and to participate in the information and decision-making process. Mutual recognition of the value of every professional's role in the teamwork does not mean - of course - that differences of function and responsibility shall be abolished or neglected. A clear definition and mutual understanding of the responsibilities of every team member is central to efficient teamwork. A common approach to the patients' problems and to the organization of work, however, implies the provision of regular opportunities for the exchange of information and viewpoints, experiences in continuing education, and work records.

In reality, however, workload, understaffing and time-related income incentives often hinder the development of the prerequisite conditions for the improvement of communication and collaboration.

Furthermore, the health centre (and other institutions based on the concept of team care) often has problems of fitting into the larger health care administrative structure. This may apply to the accountancy of the services as well as to definition of the duties of the team (and the individual professional).

All these constraints may aggravate the regular problems and differences among team members which are related to differences in social origin, social status, income, communication abilities and sex roles. Problems of communication between the patient and the professional(s) are also an

important element in this context. Lack of knowledge of health and sickness on the part of many clients and their tendency to rely on the professionals' authority have led to neglect of the patients' potential to play an active role - individually and collectively - in the maintenance and restoration of their own health. The concept of self-help may foster more adult forms of communication and collaboration between the professions and the client and thus contribute to a reorientation of the actual health services.

6. General conclusions

The improvement of communication and collaboration between and within the health and educational systems is not a purpose in itself. This improvement is only a tool in the process of change of both systems in the sense of a better orientation to the health needs of the population. This implies a reorientation from a largely hospital-based and biomedical model towards a concept of health promotion and maintenance through primary health care. There is still a tremendous lack of research data on the health needs of the population and corresponding strategies and developments in primary health care. An important shift of research resources and manpower from biomedical research towards research on needs for psychosocial and nursing care in the community is necessary.

The improvement of communication and collaboration is not an easy task, since health services and training systems have developed a high level of division of labour which has led to the development of particular interests within each system and thus to a lack of consensus on the desirable changes in the health service and educational concepts.

The process of improvement of communication and collaboration cannot be promoted by single strategies but must take the complex interrelations in this area into account. The process of change will take time, and it must therefore be planned in the light of realistic, long-term perspectives. It is questionable whether the largely ad hoc decision-making practice in matters of health services and health manpower training is at all able to contribute to this long-term change. Moreover, attempts to change the HMTS will probably have little impact without parallel and corresponding changes in the structure of the health services.

As every change touches vested interests, status and habits, it should be remembered that the improvement of communication and collaboration is a social process which causes friction and conflict. Thus, it takes place - and must be planned - within the broader context of sociopolitical realities and developments in a society. It cannot be envisaged as an isolated societal subprocess. Steps for effecting the improvement should thus aim at identifying points of interest which may be common to the institutions and professions concerned. At the same time attention should be paid to strategies to ensure a beneficial outcome of conflict and dissent.

Proposals for the improvement of communication and collaboration must gain acceptance by the institutions and professionals concerned in order to be successful. Furthermore decisions and proposals "from above" are largely unlikely to produce real change. A balanced distribution of power among the institutions and professions of both health services and training systems is a prerequisite. A concentration of power in one institution/profession may inhibit change within the total system. In attempting to improve communication and collaboration it should be borne in mind that function is more relevant than mere structure. The same applies to informal mechanisms, which should be strengthened rather than reduced through planning.

A comparison of the situation in different countries shows that two elements can be considered to be central constraints in making the necessary changes described above:

- the central influence of medical sciences and faculties in the shaping of both health services and training systems;
- the predominance of the medical profession in all decisions on service needs and types of service to be delivered.

The question of the prerequisite and incentives for change in these two areas deserves more attention in the future. One approach could be to develop international comparative research on the development, successes, failures and problems of existing reform experiments.

Due to budget limitations in the Member States it will be less easy to use money as an incentive to promote change. The question of nonmonetary incentives for change deserves careful consideration. It is suggested that all planning processes should provide room for experimentation in the field of organization of health services delivery and health manpower training rather than aiming at uniformity of structure and behaviour.

As a general conclusion, it can be stated that the improvement of communication and collaboration within and between the HSS and the HMTS is narrowly linked to the perspectives of development of a system of primary health care in Europe and thus largely depends on a basic change in our concepts of health and disease.

7. Recommendations

7.1 International level

(1) Ways should be found to provide for wider distribution and more thorough consideration of reports of the WHO Regional Office (and other international organizations) in Member States, and to ensure that the conclusions and recommendations reach professionals in services and training institutions. Similarly, it should be ensured that recruitment mechanisms for WHO working groups (and other meetings) guarantee adequate representation of all echelons of professionals.

(2) Communication at international level is impeded by continuing semantic differences. Further clarification of terminology is needed. It is recommended that the relevant items be extracted from the Glossary of health care terminology (11) and put into a background paper for every meeting.

(3) WHO should promote cross-national comparative research on the effects of existing experiments aiming at reorientation of the health services and the training of health professionals, on their constraints and on the mechanisms that have proved successful in increasing communication and collaboration between the two systems.

7.2 National level

(4) In accordance with the recommendations of the earlier WHO working groups (2,3), further efforts should be made for the establishment of a national body in every Member State which would represent the various interests in the health services and training systems. This body could promote mutual understanding and develop guidelines for action aimed at developing a comprehensive plan for health services and manpower training. For that purpose it is essential to ensure a sound balance between the centralized and decentralized levels within a country in all matters of decision-making and execution. It should also be ensured that the modes of communication and collaboration remain as simple and involve as little time as possible.

(5) Although national liaison bodies exist in some countries, there is a great lack of similar liaison mechanisms between authorities, professional bodies and consumers at the local level (e.g. in regional health care, single medical faculties, etc.). Steps to establish such bodies should be considered. Educational institutions should be encouraged and supported in efforts towards the establishment of cooperative projects with the local health services.

(6) The possibilities for an internationally coordinated effort at nationwide distribution of information on the concepts of primary health care and health protection (e.g. Alma-Ata Declaration) should be investigated.

7.3 Institutional and interpersonal level

(7) Teamwork in the health services is the most important mechanism to improve communication and collaboration. Teamwork requires working conditions and a climate which allow the team members to work on a non-hierarchical basis. On the other hand, a precise description of the tasks of each team member, a shared understanding of the training and skills of the team members and a common work record system are necessary. With regard to teamwork and communicaton, the question of confidentiality of information should be clarified on an interdisciplinary basis.

(8) An increase in communication and collaboration is, in some cases, inhibited by legal barriers which restrict the professional autonomy of certain categories of health professional. Every profession should be allowed and encouraged to develop the body of knowledge basic to its discipline and to manage its resources autonomously.

(9) Experiments with professional "change agents" and with "ombuds" in the fields of health services and manpower training should be promoted and evaluated. The same applies to interprofessional initiatives aimed at changing policy within professions.

(10) Textbooks for in-depth study within a discipline should be written by members of the profession concerned and not by members of other professions. Communicaton could be greatly improved if scientific congresses and journals were organized on an interprofessional basis. The same applies to the planning and realization of research projects concerning the organization of health care.

(11) There is also a need to improve the communicative competence of the client. This implies a need for further development of attitudes of self-responsibility for health within the population and promotion of the participation of nonprofessionals in the planning of health services and health manpower training units.

(12) There is a need for core curricula to teach the concepts and skills common to the work of all health professionals. Such curricula should provide for:

- the development of an attitude of responsibility for communication and collaboration as an essential part of the professional role;
- the acquisition of skills in communication with professionals and clients;
- the acquisition of skills to detect specific health care needs in the population and to develop adequate strategies to meet them;
- the development of an attitude of health maintenance and promotion as the basic philosophy of the work of health professionals;
- the acquisition of knowledge and understanding of the professional skills and the training of other health professionals.

The undergraduate education of all health professionals should contain a balance of learning experiences in hospital care and in primary care. In both cases, active participation in the delivery of services should be secured instead of stressing the acquisition of factual knowledge.

(13) Similarly, the continuing education of today's health professionals should give much more emphasis to the problems of communication and collaboration and should include practical learning situations enabling different professionals to reduce common deficiencies in this area.

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Annex 2

LINKS BETWEEN MEDICAL EDUCATION AND HEALTH CARE IN THE CANTON OF BERNE, SWITZERLAND

by
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The case study describes the links between medical education and health care and discusses the significance if the concepts of communication and collaboration within the framework of such links.

1. Changes in medical education

1.1 The reform of medical licensure in Switzerland

Undergraduate medical education in Switzerland must meet the requirements of a Federal Regulation on Medical Licensure, which specifies the course of study as well as the nature and number of medical subjects and examinations.

In 1969 a committee appointed by the Association of Swiss Medical Faculties put forward a plan for a period of "educational experiments" which was supported by all medical faculties, the Swiss Medical Association and the Medical Students' Association, at least in the beginning. The key elements were:

- reduction of the medical curriculum from almost 7 to 6 years by shortening the preclinical phase from 2.5 to 2 years;
- reform of the system of examinations;
- reduction and integration of courses and curriculum content;
- provision of practical training during the three clinical years with strong emphasis on bedside teaching;
- introduction of a final elective year;
- partial replacement of oral by written or multiple-choice examinations;
- specification of educational goals and objectives as a basis for the definition of criteria for licensing examinations.

In 1977 an expert committee appointed by the Federal Government made a proposal for a new Regulation on Medical Licensure based upon the experience of the educational reforms. Two fundamental changes were suggested. First, because of the growing specialization and differentiation of medicine it was suggested that a subject-based system of medical licensure was no longer justified, but that instead a competence-based system should be introduced. Second, a system of clinical examinations was proposed that included three elements: (1) evaluation of various professional skills throughout the clinical course; (2) integrated multiple-choice examinations in four important subject areas of clinical medicine; (3) two comprehensive practical examinations of clinical competence, based upon the independent judgment of three examiners as well as upon specified criteria.

This proposal was supported by politicians, some doctors and the large majority of medical students; it was, however, opposed by the medical faculties and by the Swiss Medical Association. It was felt that such a new system would be too costly, unrealistic for practical reasons and not suitable for a reliable assessment of knowledge and skills in the clinical disciplines. The compromise that is likely to be accepted by Parliament and the Federal Government combines elements of the expert committee's proposal (a set of general aims of medical education) and of the existing regulation favoured by the faculties (subject-based examinations).

1.2 Medical education at the University of Berne

The Faculty of Medicine is associated with the Canton's largest and most specialized hospital, the Inselspital in Berne.

In the academic year 1979/1980 the total number of students was 11 270. The drop-out rate in the two preclinical years is assumed to be about 30%.

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Of Switzerland's five medical schools only the Berne Faculty adopted the majority of the new elements of the reform proposed in 1969, while the other four introduced moderate or minor changes. The new clinical curriculum of the Faculty was introduced in 1971.

Its overall goal is to prepare a basic doctor for later professional work as a medical practitioner in all fields of medicine, as well as medical science.

The two preclinical years are devoted to instruction in the basic natural and biomedical sciences and to a short introduction to medical psychology. The four-year clinical course consists of an introductory year (pathological processes), two years of clinical clerkships in the major clinical specialties ("block system"), and a final elective year.

Several studies were undertaken to assess learning, teaching and clinical work using the new curriculum as well as the opinions of students, teachers and advisers. From these studies it can be concluded that the clinical programme meets most of its aims, and that it is accepted by the majority of students and staff. The major advantages mentioned are: the emphasis on practical work and the application of knowledge, the interaction of students with patients, the opportunity for group work and a close working relationship between students and hospital doctors, and the requirement that students work independently and assume a certain degree of responsibility for patient care and their own learning.

On the negative side, the studies suggest that students and staff believe there is too much emphasis on practical work, especially in the second and third clinical years, and insufficient effort to integrate practical experience with relevant theory. However, a comparative analysis of results of objective examinations in a number of clinical subjects in all Swiss medical schools does not support this view. Students from Berne seem to perform at least as well or even better.

Furthermore, it is said that the programme tends to focus largely on biomedicine while paying little attention to the psychological aspects of illness, patient care and professional behaviour. The quality of the learning experiences seems to vary greatly as it depends to a considerable extent on the pedagogic competence of tutors or supervisors who, in general, have never been taught how to teach, particularly when working under pressure. Part of the programme appears to suffer from inteference by examinations. Finally, the training has been considered too costly, e.g. with regard to the staff-student ratio.

1.3 Recent developments

As in many other countries, a new perspective in medical education suggesting a stronger orientation towards psychosocial medicine and primary health care emerged in the mid-1970s. The aims and content of medical education should emphasise prevention, first-line and whole-person medicine and, in particular, the psychological and social aspects of health and illness, as well as of patient care.

The majority of medical students express attitudes that seem to favour a psyshosocial primary care perspective, despite the pronounced natural science orientation of the medical curriculum. The students' image of the ideal doctor is that of a person who is interested in social and psychological problems and in helping others. There were hardly any differences with regard to these attitudes of students from the first to the sixth year. For example, general practice was identified as the first potential career choice by 48% of first-year students and 43% of sixth-year students. The proportions for medicine were 2% and 17%; and for surgery they were 11% and 7% respectively. Psychiatry was selected by 7% of both groups.

2. Influences on medical education in Berne

There are a great many links between the systems for medical education and health care and many different kinds of influences that one system may exert on the other. These influences can be explored in somewhat greater depth at different levels such as international, governmental, institutional, group or personal.

International

Extensive exchanges between Switzerland and USA had an impact on medical education in Switzerland during the 1950s and 1960s. Thus, the notion of patient-centred medical education, and its practical application in the form of bedside teaching and "learning by doing", was particularly influential in the 1960s.

More recently, medical educators became interested in other concepts such as problem-based learning and primary health care, i.e. concepts which guided the establishment of new medical schools in Canada and later also in Australia, Israel and the Netherlands. There can be no doubt that, in addition to these developments, the work of the Royal College of General Practitioners in the United Kingdom, the Centre for Educational Research and Innovation of the Organisation for Economic Co-operation and Development and in particular the World Health Organization has influenced the debate on health care and medical education in Berne.

Federal

Interaction of the Faculty with the Federal Government relates to the content of medical education, and the resources for running a medical school. In a federal system such as that of Switzerland the Federal Government is responsible for licensing regulations and hence for the specification, in general terms, of the content of the medical curriculum. Whenever the licensing regulation is to be changed faculties will become involved in bargaining about the nature, number and importance of disciplines to be included in the medical curriculum and the system of examinations.

Cantonal

Communication and collaboration with the Cantonal Government relates to the legal, institutional and administrative aspects of medical education, health services offered by university hospitals and research. But the main purpose of such interaction is negotiation concerning financial, personnel and other resources. Because of a growing shortage of resources in the Canton of Berne and elsewhere it is likely that planning will become an important government activity. This may imply growing concern and even conflicts about the goals and the effectiveness of medical services, research and education.

Faculty

At the faculty level, communication and collaboration within and between individual service, research and teaching units or particular groups of people tend to relate to a wealth of issues such as the objectives and content of learning and teaching; educational programmes and timetables; learning situations and learning environments; and the quality and outcomes of learning and teaching. Beyond these strictly educational matters, the interaction might also deal with the distribution and control of resources; the coordination of programmes and activities; the selection and promotion of staff; and the formulation of departmental and faculty policy.

Teachers and students

The issues outlined so far tend to be debated among teachers and students. Furthermore, teachers normally communicate factual information, knowledge, professional rules and norms; students communicate expectations and signs of competence or lack of competence. Frequently, students and doctors communicate while cooperating in diagnostic and therapeutic activities. There both groups also interact with patients, adding yet another complex dimension.

3. Summary and conclusion

A traditional medical school, the Berne Faculty of Medicine, was able to change its programme considerably and to some extent also its internal administrative stucture, in a relatively short time. However, this was a period of continuous economic growth and an impressive increase in public expenditure in higher education, health care and other fields.

Over a period of less than ten years a network of links was built not only between teaching and health care institutions, teachers and doctors, but also between the Faculty and Government. There exists now a wide range of opportunities for specialty-based and hospital-based on-the-job training of medical students, in addition to a large number of lectures and courses in the basic natural and biomedical sciences and in the clinical disciplines. Within a framework of interinstitutional and interpersonal links, a pattern of communication and collaboration between the sytems of medical education and health care has emerged.

The complex systems of medical education and health care in the Canton of Berne are, of course, part of the larger political, economic, social and cultural system of a modern society. To plan and successfully implement innovations in such systems, i.e. to build better links between medical education and health care, is not simply a matter of social engineering. It is a process which requires sufficient insight into the forces and interactions that determine the stability as well as the evolution of a medical faculty and of health care institutions.

Annex 3

HEALTH MANPOWER TRAINING AND ITS RELATION TO THE HEALTH SERVICES IN SWEDEN

by
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and
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1. Organizations

The Swedish systems for health services and education of the health professions have undergone great changes during the last decade.

Health services, which are regarded as being clearly a responsibility of the public sector, are provided by local government - county councils and municipalities - in a regionalized system. The work of the county councils is of a political character. In most cases the county councils cover areas with a population ranging from about 60 000 to 300 000, with an average of 150 000. They are affiliated with the Swedish Federation of County Councils (Landstingsförbundet) which provides services to its members and represents their interest as a negotiating body. The counties are divided into districts for outpatient care. Each district has one or more local health care centres plus one or more nursing homes for long-term care.

The county medical care services are responsible for patients with life-threatening conditions or other illnesses requiring resources that must be concentrated at one or a few hospitals within each county.

For the highly specialized regional medical care, Sweden is divided into seven regions, each with a population averaging somewhat more than one million. In most cases the regional hospitals are attached to a medical school.

Although in many respects the county councils operate their health care delivery systems independently, the Swedish State has supervisory powers over these activities. In accordance with Swedish tradition, the central administration below Parliament is divided into bodies at two levels; namely, in the case of health care delivery:

(a) the Ministry of Health and Social Affairs; and

(b) relatively independent agencies, primarily the National Board of Health and Welfare (NBHW).

The Ministry of Health and Social Affairs is part of the Government Chancellery. It prepares government business and draws up guidelines in such fields as health care delivery, social welfare services, and health insurance. Attached to the Ministry is the National Health Planning Committee (NHPC) which handles questions of national planning within the health care delivery system.

The NBHW is a national administrative agency for matters concerning health care delivery, pharmaceutical supply, and social welfare services. Its tasks include:

- assistance with planning: providing background material to the Cabinet, Parliament and the county councils and otherwise monitoring and assisting in the planning activities of the county councils,
- supervision of outpatient and inpatient health care delivery and the professional performance of health care personnel.

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In 1977 Parliament adopted a bill setting forth guidelines for a reform of higher education. An important part of the reform concerns the links between education and other areas of society. The content of the studies should be adapted to labour market conditions. At the same time the labour market should be open to influences from higher education. People representing public interests and the labour market sit on the National Board of Universities and Colleges (NBUC) and may also have a decisive influence on the curricula.

Another important feature is decentralization of decision-making powers from national to regional and local levels.

In the field of education the state supervisory powers are executed by:

(a) the Ministry of Education
(b) the National Board of Universities and Colleges
(c) the National Board of Education.

Medical education takes place at six medical schools. Admissions are restricted. The basic programme requires 5-1/2 years of study followed by a 21-month period of general internship to obtain a licence to practise.

The training of registered nurses takes place in some 30 schools managed by the county councils. The study programme comprises five terms of basic education or a shortened course of three terms for students who are already registered practical nurses, aides, or psychiatric orderlies; graduates from the nursing branch of secondary education also qualify for the latter course. There are possibilities for specialization after one or two terms of postbasic studies.

2. Postgraduate training of physicians: qualitative and quantitative aspects

2.1 Nature of the training

Medical postgraduate training is regarded as an important element in long-term health care planning and can be described in term of its qualitative and quantitative aspects:

- from the qualitative standpoint, the organization, structure, objectives and control mechanisms of the training must be adaptable to the demands of society in general and of the health delivery system in particular;

- from the quantitative standpoint, the educational structure must also serve as a means to achieve an optimal allocation of physicians to different geographical areas and medical fields, as motivated by the demands of health and medical care.

The postgraduate training has two major components: a general service period of 21 months (in this report usually called internship), compulsory for the license to practise medicine, and a specialization period of 4-5 years depending on the specialty (residence). Today there are about 40 specialties including training in general medicine (general practice).

2.2 Qualitative aspects

The qualitative aspects of the training are the responsibility of the National Committee for Postgraduate Medical Education (NCPME). Although located on the premises of the NBHW, the NCPME is an independent state agency.[a]

Communication between the NCPME and the Ministry of Health and Social Affairs is very much of a formal nature. The Ministry constitutes the political level of organization and directs the work of the NCPME with the help of new regulations and the allocation of funds for certain tasks.

The decision-making of the NCPME is influenced by the composition of its board (see Fig. 1), which allows all important authorities and organizations in the field of postgraduate training to be involved in the planning and the accomplishment of the training. Moreover both permanent and ad hoc subcommittees of the NCPME are always constituted in accordance with the composition of the board.

[a] Since 1 July 1981 the tasks of the independent NCPME have been carried out by an advisory board within the NBHW.

In order to achieve close contact and cooperation with medical expertise and thus also in an informal way with the medical schools/universities, the NCPME has built up an organization of medical experts. Generally speaking there is an advisory group with about 2-3 experts for each specialty.

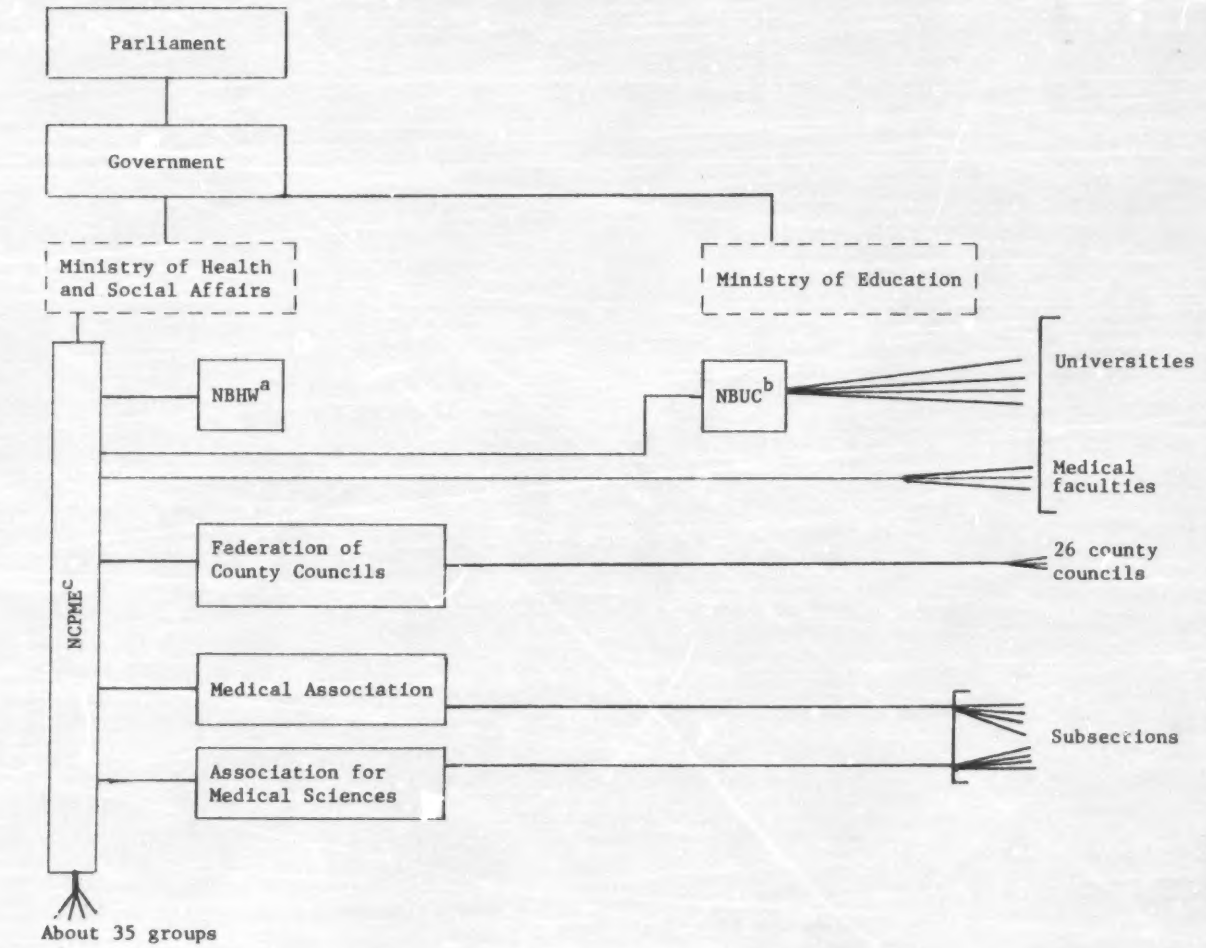
The interaction between the different authorities and organizations is of many different kinds. There is both formal and informal communication and also a great deal of collaboration.

Most of the decisions are made jointly. Decisions on important matters are often prepared by ad hoc working groups whose work may take the form of negotiations. In the very few cases of disunity there is often a confrontation between the public interests and the interests of physicians.

In the daily activities of the NCPME, there are regular contacts of an informal nature with the offices of the member authorities and organizations.

The lines of communication and collaboration are summarized in Fig. 1 below.

Fig. 1. Work of the National Committee for Postgraduate Medical Education: lines of communication and collaboration (qualitative planning)



[a] National Board of Health and Welfare
[b] National Board of Universities and Colleges
[c] National Committee of Postgraduate Medical Education

2.3 Quantitative aspects

Attention is paid to the quantitative aspect of the training through the programme on distribution of physicians - or LP (Läkarfördelningsprogram). Training posts, internships and residencies may be held only by nonspecialized physicians and only for as long as is necessary to obtain a licence to practise or a specialist degree. The number of training posts each county council is allowed to create is decided by the NBHW.

In 1973 the NBHW began developing plans for distribution of the training posts, in close collaboration with the Federation of County Councils, the Swedish Medical Association and the NBUC.

The primary objective of the planning is to obtain reference data for decisions on specialist training in such a way that the number of specialists at a certain time in the future corresponds as far as possible to the needs of the society: in other words, to obtain a balance between supply and demand over a certain period of time. The work is done with respect, among other things, to the politically stated priorities of the health services system. For instance Parliament has stipulated that priority is to be given to primary health care, long-term care and psychiatry.

Under the LP, proposals are elaborated for the distribution of the new graduates between different branches in the postgraduate system. The NBHW then submits the proposals to the NHPC for decision.

The main objective of the work of the NHPC is to achieve such a distribution of the total resources for health delivery that, in the long run, they are used in the optimal way corresponding to the needs of health delivery. The NHPC is composed of representatives of a wide range of ministries, authorities, organizations, etc., that are concerned with the development of both education of health personnel and the health delivery system. Its work is planned and directed by the Ministry of Health and Social Affairs. At the next stage, the accomplishment of the LP becomes a responsibility of the NBHW, in consultation with the Federation of County Councils and the Swedish Medical Association. The LP as a whole is revised every second year and a detailed distribution of training posts is worked out every year.

Below are important steps, (a)-(d), in the LP work described from the perspective of communication and collaboration between the different bodies involved.

(a) Estimation of demand for physicians

The planning process includes analyses of the county councils' 10- or 15-year plans and comparisons between these plans and the gradual accomplishment of the long-term plans, taking into account the annually revised five-year planning documents and other planning material which the county councils continuously make available.

Furthermore, data are collected on the number of vacant posts in different parts of the country and in different fields of specialization.

The NBHW works out demand analyses based on different programmes. For instance the programme for health services in the 1980 is now being revised with a view to the requirements of the 1990s; on this basis, a number of programmes for different fields of health delivery have been worked out.

Most of the preparatory work for the demand analyses is carred out at the local level by the county councils.

(b) Projection of supply of physicians

The NBHW keeps a record of licensed physicians and also a record of physicians during their internship. These records are kept up to date by yearly inquiries to the physicians. Every second year the survey of publicly employed physicians is broadened to include also a detailed report on working conditions during a given week.

(c) Balancing of demand and supply

(d) Implementation of the programmes

After the decision on the LP has been taken by the NHPC, the NBHW is responsible for implementing it, with respect to the distribution of new career posts and to the detailed allocation of training posts for interns and residents. This distribution is made once a year for the following year.

Parallel to this detailed planning of the postgraduate training, the county councils also prepare their applications for new career posts for the following year. These applications are submitted to the NBHW. The Board's decisions on new posts must be within the limits set by the NHPC in its decision on the LP. Thus the estimated net increase in the number of new specialists and general practitioners becomes the determining factor. Within this frame, the objective is to distribute new posts for postgraduate physicians as evenly as possible between the different county councils.

The LP work to a great extent is based on communication and collaboration between different levels and between different organizations, at a given level. Formal communication with the individual physicians is also of importance.

The LP planning unit includes representatives of the authorities and associations concerned, therby guaranteeing continuous checking of the steps in the procedure with the relevant decision-making bodies. The representatives must, however, exercise some responsibility of their own, since the time available for the planning process is very limited. There is often no or very little time left for deliberations within the different authorities or associations. The deliberations must therefore take place mainly at the beginning of the process, when the representatives of the groups often have to act independently.

The objective of the close cooperation is to reach a common result and to be able to present a proposal to the NHPC which all parties involved are prepared to accept. This objective has hitherto been accomplished even if the discussions have almost always been both long and tough. As in the work of the NCMPE, there is antagonism between the interests of the public and of the physicians. That, of course, also means that the programme proposal delivered to the NHPC does not provide alternatives for the NHPC to consider.

The method itself is functioning fairly well. The problems arising are chiefly due to the continuing lack of medical manpower which permits physicians to choose the so-called attractive specialties for postgraduate training. The lack of doctors may also encourage the county councils to engage in competition which, from the planner's point of view, may be unfair. More loyalty among the county councils has to develop and this will obviously come in the near future.

3. The reform of medical education: problem of planning

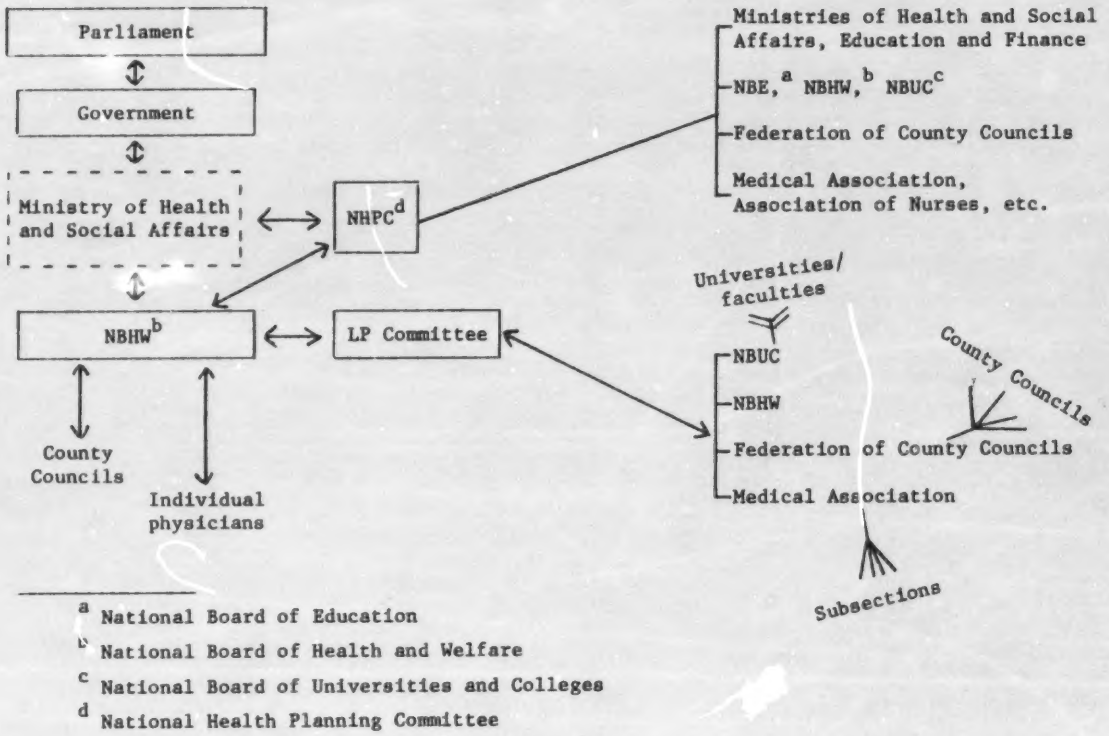
Following the general reform of higher education in 1977, the main decisions on curriculum content are made at the university level. The NBUC only defines the overall objectives and the length of the study for the medical degree. The local educational board can then change the details of the curriculum as long as the objectives are met. The members of the NBUC are medical teachers and students, and representatives of the local health services. In this new system the NBUC has a role of coordination and development. Within the NBUC, a planning committee for education for the health professions plays an important role.

In 1977 the planning committee started a project aimed at introducing more community medicine within the medical curricula of the different schools. It was clear from the start of the project that the goal was not to impose anything on the local education boards, but rather to try to stimulate them to revise the content of medical education. The project group consisted mainly of members of the planning committee, but also of some representatives of research in community medicine at the medical schools. Thus, on the surface, the group could be said to represent important parts of both the education and the health sectors. In its report the group gave an outline of a new model curriculum, showing how community medicine could form a larger share of the medical curriculum in the future. Given the same length of education this must, of course, lead to diminishing the share of some of the other subjects in the present scheme. The group was almost unanimous in submitting its proposal, thus showing a certain consensus - at the national level - between the education and the health sectors.

This consensus between the two sectors could not be maintained when the report was scrutinized by the local education boards. Although the boards represent different interests from both the educational and the professional sectors, it is obvious that the points of view of the medical schools have a strong impact on their decisions. The reaction to the report was therefore, on the whole, rather negative. This reaction was in part due to the traditional defence mechanisms of the subject-oriented medical schools. It could also be seen as a reaction against what was perhaps seen as an attempt to centralize decisions in a recently decentralized decision-making process.

The lines of communication and collaboration in the LP work are illustrated in Fig. 2 below.

Fig. 2. Programme on distribution of physicians: lines of communication and collaboration



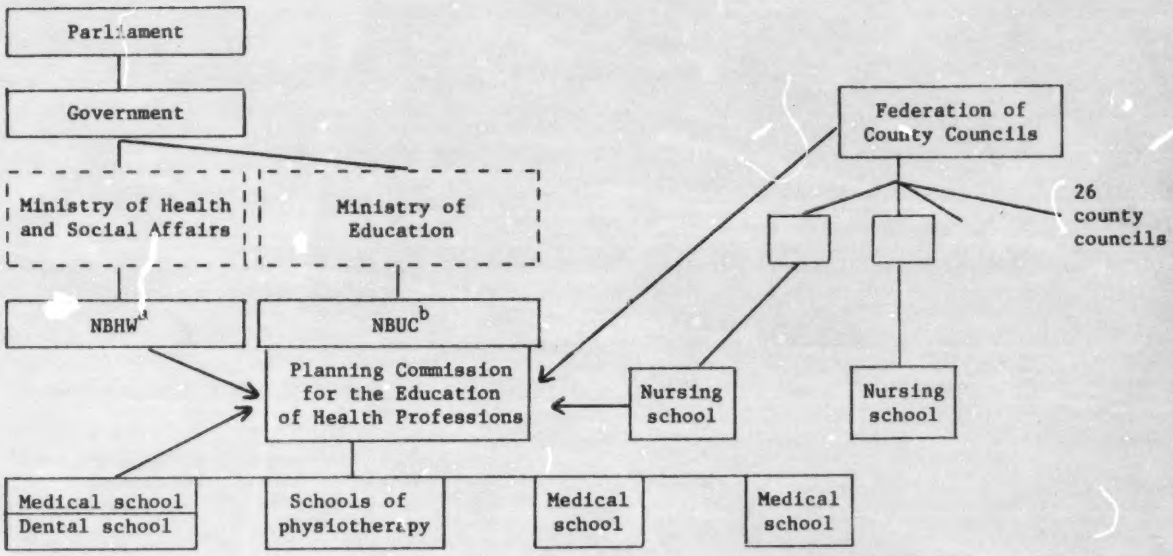
[a] National Board of Education
[b] National Board of Health and Welfare
[c] National Board of Universities and Colleges
[d] National Health Planning Committee

The NBUC has taken no immediate action on the report. Instead it has made the report one of the foundations for a new committee to be set up to make an overall revision of the medical curriculum in Sweden. The difficult task of the new committee will be to act as a kind of mediator between the different parties involved. It could be a temptation for the committee and the NBUC to impose its views on the medical schools, but those who have studied the mechanism of innovation and change in higher education know that that very few changes in this field can be brought about by power. Rather, new directions in higher education will be taken only when the parties primarily concerned (teachers and students) are convinced by discussions and thus feel a sense of "ownership" in relation to the changes. This will often require some forms of incentive.

In the past, the economic incentives have often been important for bringing about change in research and education. They have taken the form of new professorial chairs or some funds for teaching new subjects. In the coming years of economic recession, there will be very little room for this kind of incentive.

The committee charged with the reform of medical education will be working for another year. It will continue its deliberations in close contact with the local education boards. The balance between central and decentralized planning must be upheld. The main problem will be to "sell" the consensus between the health and education sectors at the national level to the local level. The fact that practising physicians, nurses and health care administrators take part in the work of the local education committees should make this easier. The problem of reconciling the demands of new directions in health care with the understandable ambitions of ever more specialized medical research and education has not been solved in Sweden.

Fig. 3. Education of health personnel and medical education: lines of communication and collaboration



[a] National Board for Health and Welfare

[b] National Board for Universities and Colleges

4. Conclusion

The given examples of communication and collaboration are good illustrations of the way organizational and functional changes have been carried out over the last 10-15 years. In this process functional aspects are just as important as organizational solutions.

There is excellent communication and collaboration, both vertical and horizontal, among all the different bodies involved.

The major role of the professional organizations should be stressed, as well as the individual responsibility of the persons involved.

The Swedish model for communication and collaboration is complex and multidimensional. The development of the systems for education and health services is gradual. There are no sudden changes or reforms.

Annex 4

COMMUNICATION BETWEEN HEALTH CARE AND MEDICAL EDUCATION IN POLAND

by
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and
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1. Organization

The responsibility for delivery of health care in Poland is entrusted to voivodships (provinces) of which there are 49 with a population varying from 200 000 to 3 000 000.

The basic organizational unit at the primary level is the integrated health centre. It is composed of a hospital, general and specialist outpatient clinics, emergency service stations, social welfare units and - depending on the territory - industrial health care complexes or rural health centres.

At the voivodship level, there is the voivodship integrated hospital, providing care supplementary to the services of the integrated health centre. This hospital is responsible for supervision and coordination in the voivodship, a system known as "voivodship specialist supervision".

Supervision by the Ministry of Health and Social Welfare is organized in a similar manner. The units which exercise this supervision are the scientific research institutes or teams of national consultants. In some disciplines in which the scope of activity is especially wide there is a middle level of regional specialist supervision.

Regional supervision is performed by the medical academies.

2. Medical academies

The medical academies in Poland are not part of the universities and are not under the jurisdiction of the education authorities, but are directly responsible to the Ministry of Health and Social Welfare.

A medical academy is an institution educating physicians, dentists, pharmacists and nurses at university level. There are medical academies in 10 provincial cities with a total of 13 medical faculties, 9 stomatological divisions or institutes, 8 pharmaceutical faculties and 4 nursing faculties for graduates from nursing schools.

The medical academy has five main tasks:

(a) to give basic training to physicians, dentists and pharmacists and advanced training to nurses;

(b) to assist in organizing postgraduate training for medical personnel;

(c) to supervise the health services in their respective regions (surveillance of the quality of medical care);

(d) to carry out research;

(e) to provide highly specialized care.

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Thus, the medical academy trains medical professionals to staff the services of its region, and it usually involves the provincial and district hospitals ("affiliated hospitals") in the educational programmes. It provides highly specialized therapeutic and rehabilitative services for the region, with the academic teaching hospital or hospitals serving as tertiary health care centres. Research is done both by the teachers and by students. Perhaps the most unusual function of the medical academy is its role in control of the quality of care provided in its region through periodic visits of the specialist staff.

3. Undergraduate education

The undergraduate education lasts 6 years.

After obtaining the diploma the graduate is obliged to complete a year-long internship in primary health care hospitals and clinics, after which he acquires the licence to practise.

An important element of the general reform of studies, introduced 15 years ago, was the determination of appropriate proportions between theoretical and clinical disciplines and, furthermore, an emphasis on the practical aim of the education, which was to prepare the graduate to work in primary health care.

The rapid development of specialization in medical academy clinics, however, limits their role in education as they do not favour preparation of the student for his future tasks as a general practitioner.

The lack of doctors and other medical personnel is a factor influencing the educational process. The high number of students causes education to assume a mass character, which to a large degree limits the stimulation of the student's individual development. This is especially important in the practical training.

In order to overcome those difficulties, medical academies have entered in direct cooperation with units of the regional health services. The first education centres in integrated voivodship hospitals were created over ten years ago. At present, education is organized both in voivodship hospitals and in integrated health centres. A centre is selected if there exists an appropriate group of practitioners who might be involved in the teaching process.

Education in regional centres is undertaken by the local practitioners and academic teachers delegated for a period of time, or on a permanent basis, to regional health care units.

Students in the three last years of studies, the clinical period, are sent to the regional education centres for clinical exercises in selected disciplines, for several weeks or - if the centre is well-organized and its personnel experienced - for three years, i.e. until the completion of studies.

The quality and conditions of teaching are evaluated very favourably by the students. The students stress the close contact with the patient, and the good cooperation with the medical team and with the nurses; they also value the practical experience and observations in the so-called "normal" hospitals. Assessment by the faculty is not homogeneous. Some of them assess favourably both the theoretical and the practical preparation of students, as well as their knowledge of primary health care problems. Some are more critical - especially as to the theoretical aspects of clinical disciplines. This divergence of assessments and opinions of the medical academy faculty may be related to the fact that some of the teachers regard scientific departments and academic clinics as the only place for student education.

4. Postgraduate education (specialist training and continuing education)

The Medical Centre of Postgraduate Education, with headquarters in Warsaw, is responsible for the national system of postgraduate education for health professionals. The Centre also does research and is involved in control of the quality of health care.

At regional level, postgraduate education is conducted by medical academies where regional training centres exist. At the voivodship level similar centres are connected to the integrated voivodship hospitals. The teaching programmes include all types of specialist training.

Programmes of continuing education for local health service physicians are usually arranged at their place of work in the form of seminars, conferences and consultations. About 90% of all medical personnel employed in local health services take part in different forms of continuing education.

5. Control of the quality of care (specialist supervision)

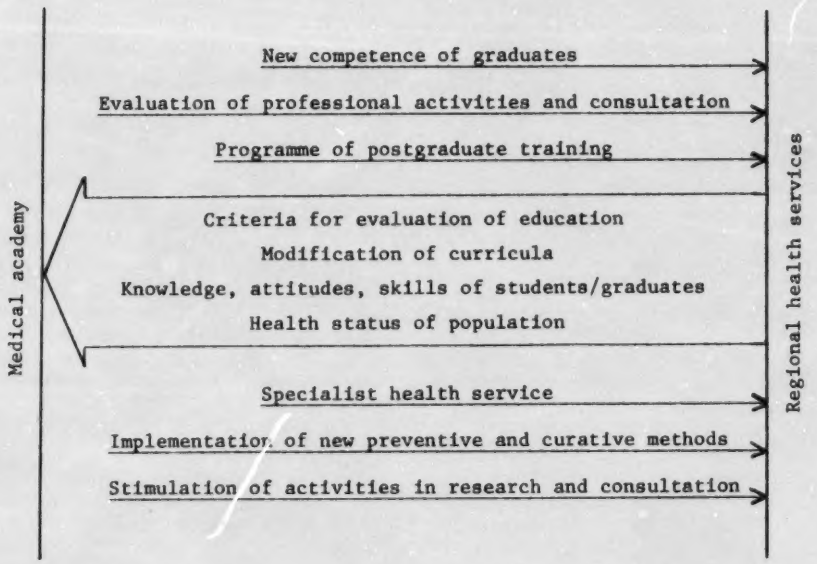
Poland's highly organized system of control of the quality of medical care operates at four levels: national, regional, provincial and local.

At regional level, the medical academy and its faculty exercise surveillance of the care provided in each voivodship. The specialists from the academy teaching hospitals have responsibilities for control of the quality of care in their respective fields.

A deputy rector of the medical academy directs the specialist supervision and coordinates specialist services of the academy staff. Being fully informed of any problem or dysfunction of the regional health service, he may modify student education, services, equipment and supplies as well as the actual care provided. The results of reviews are collected, analysed and submitted to the director of the voivodship health department. When weaknesses are identified in the performance of individual physicians, additional training in an academy hospital is recommended. The physicians tend to be cooperative about such training because it gives them the opportunity to improve their skills and knowledge free of charge. In addition, the Ministry of Health and Social Welfare organizes annual meetings of rectors, directors of provincial hospitals and ministry officials to plan further improvements in the health service and training. These meetings and coordination of the work are possible because the health and education services are under a single authority. The system of specialist supervision enables a vertical flow of information in both directions and constitutes an element of self-regulation and optimization of the health care system.

The medical academies have multiple, complex links with the regional health services, as shown by the following diagram:

Working relations between medical academies and regional health services


Medical academy
Regional health services
New competence of graduates
Evaluation of professional activities and consultation
Programme of postgraduate training
Criteria for evaluation of education
Modification of curricula
Knowledge, attitudes, skills of students/graduates
Health status of population
Specialist health service
Implementation of new preventive and curative methods
Stimulation of activities in research and consultation

Annex 5

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[a] Participation expenses not paid by WHO